

# Chapter 5

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# AIR RESOURCES ELEMENT

## I. INTRODUCTION

Southern California residents consistently rank the region's poor air quality as one of their highest concerns. Despite a wide array of stringent regulatory efforts that have produced some gains in cleaning the air over the last few decades, the South Coast Air Basin, which includes the majority of Los Angeles County, continues to have some of the worst air quality ratings in the nation. Additionally, climate change, caused by global warming greenhouse gases, is now among the most pressing environmental issues facing federal, state, and County officials.

The County recognizes that good air quality is a vital component of a high quality of life for County residents and businesses, and that global warming poses a serious threat to our environment, economy, and public health. This section of the General Plan summarizes the existing conditions related to air quality issues and global warming, and organizes in one place the many goals and policies in the General Plan that will directly improve air quality and decrease greenhouse gas emissions that cause global warming in the County.

## II. BACKGROUND

### Regulated Air Pollutants

The air pollutants that are regulated by the Federal and California Clean Air Acts fall under three categories, each of which are monitored and regulated differently:

- Criteria air pollutants;
- Toxic air contaminants (TACs); and,
- Global warming and ozone-depleting gases.

### Criteria Pollutants

In 1970, the U.S. Environmental Protection Agency (EPA) identified six “criteria” pollutants they found to be the most harmful to human health and welfare. They are:

- Ozone (O<sub>3</sub>);
- Particulate Matter (PM);
- Carbon Monoxide (CO);
- Nitrogen Dioxide (NO<sub>2</sub>);
- Sulfur Dioxide (SO<sub>2</sub>); and,
- Lead (Pb).

There are established federal and state air quality standards to protect public health from criteria pollutants. Among the federally identified criteria pollutants, the County levels of ozone, particulate matter, and carbon monoxide continually exceed the National and California Ambient Air Quality Standards. **Table 5.1** is a summary of the primary sources and effects of the federally identified criteria pollutants.

### Toxic Air Contaminants (TACs)

There are hundreds of TACs, such as formaldehyde and methanol, which do not currently have federal or state ambient air quality standards. However, exposure to TACs is associated with elevated risk of cancer, birth defects, genetic damage, and other adverse health effects.

TACs are regulated through technology-based requirements that are implemented by state and local agencies. In California, TACs are regulated through the Air Toxics Program and the Air Toxics “Hot Spots” Information and Assessment Act. In the Los Angeles County region, operators of specific facilities must submit comprehensive emission inventories, which are used to further categorize each facility as high, intermediate, and low-priority based on the potency, toxicity, quantity, and volume of their emissions.

**Table 5.1: Primary Sources and Effects of Criteria Pollutants**

Pollutants	Source	LA County Classification	Primary Health Effects
<b>Ozone (O3)</b>	Atmospheric reaction of organic gases with nitrogen oxides in sunlight ("smog")	Extreme non-attainment area	Aggravation of respiratory and cardiovascular diseases; Reduced lung function; Increased cough and chest discomfort
<b>Fine Particulate Matter (PM10 and PM 2.5)</b>	Stationary combustion of fuels; construction activities; industrial processes, atmospheric chemical reactions	Serious non-attainment area	Reduced lung function; Aggravation of respiratory and cardio-respiratory diseases; Increased mortality rate; Reduced lung function growth in children.
<b>Carbon Monoxide (CO)</b>	Incomplete combustion of fuels, such as motor vehicle exhaust	Serious non-attainment area	Aggravation of some heart disease.
<b>Nitrogen Dioxide (NO2)</b>	Motor vehicle exhaust; high-temperature stationary combustion; atmospheric reactions	*Concentrations have not exceeded national standards since 1991, but emissions remain a concern because of their contribution to O3 and PM	Aggravation of respiratory illness.
<b>Sulfur Dioxide (SO2)</b>	Combustion of sulfur containing fossil fuels; smelting of sulfur-bearing metal ores; industrial processes	Attainment area	Aggravation of respiratory diseases (asthma, emphysema); Reduced lung function.
<b>Lead (Pb)</b>	Contaminated soil	Attainment area	Behavioral and hearing disabilities in children; Nervous system impairment.

Source: South Coast Air Quality Management District, 2005.

If the risks are above specific levels, facilities are required to notify surrounding populations and to develop and implement a risk reduction plan.

#### **Global Warming and Ozone-Depleting Gases:**

- **Greenhouse Gases:** Some gases in the atmosphere affect the Earth's heat balance by absorbing infrared radiation. This layer of gases prevents the escape of heat, similar to the function of a greenhouse. Gases that are identified as contributing to the "greenhouse" effect and are responsible for global warming are regulated through California's AB 32, which is covered in detail later in this chapter; and,
- **Ozone-depleting Gases:** Ozone-depleting gases contribute to the destruction of the Earth's naturally occurring ozone, which protects our planet from the damaging effects of solar ultraviolet radiation. The biggest contributors to ozone depletion are chlorofluorocarbons (CFCs), halons, carbon tetrachloride, methyl chloroform, and other halogenated compounds.

The negative effects of poor air quality have both economic and social outcomes. In addition to physical side effects, the economic impacts of poor air quality cause increased absences from work and school, productivity impacts, such as damage to agricultural production, and social impacts, such as the depletion of our scenic resources and natural environments. Effective regulation of air pollution, through innovative land use strategies and collaboration with air quality agencies, is a primary goal of the County's General Plan.

### **III. AIR QUALITY REGULATING AGENCIES**

The Federal Clean Air Act (CAA) of 1977 was a major policy milestone for the current federal and state systems that regulate air pollution. The following discussion summarizes the air quality agencies that play a role in regulating air pollution in Los Angeles County.

### U.S. Environmental Protection Agency (US-EPA)

The US-EPA establishes national ambient air quality standards, enforces the federal Clean Air Act, and regulates emission sources under the exclusive authority of the federal government. These sources include automobiles, aircraft, certain ships, and locomotives. Information on the programs and activities in US-EPA Region IX, which includes California, can be found at [www.epa.gov/region9](http://www.epa.gov/region9).

### California Air Resources Board (CARB)

CARB was created as part of the California Environmental Protection Agency in 1991. CARB is responsible for the implementation of the California Clean Air Act, establishing state ambient air quality standards, and overseeing several programs related to emission reduction activities. More information on CARB programs and activities can be found at [www.arb.ca.gov](http://www.arb.ca.gov).

### South Coast Air Quality Management District (SCAQMD) & the Antelope Valley Air Quality Management District (AVAQMD)

Created in response to the region's poor air quality, the SCAQMD and the AVAQMD are responsible for monitoring air quality as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the region. The SCAQMD implements a wide range of programs and regulations that address point source pollution and mobile source emissions, and enforces air quality through inspections, fines, and

“ Make not little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will a living thing, asserting itself with ever-growing insistency.

—*Daniel H. Burnham*

educational training. Both SCAQMD and AVAQMD have programs to reduce mobile source emissions by providing grants to local governments, construction companies, and school bus providers to buy or retrofit engines to meet low or zero emission vehicle standards.

The SCAQMD jurisdiction is approximately 10,743 square miles and includes all of Los Angeles County except for the Antelope Valley, which is now covered by the Antelope AVAQMD. Until 1997 the SCAQMD was responsible for air pollution control in all of Los Angeles County. However, in 1997 a special Antelope Valley district was created under the SCAQMD with greater local autonomy for air pollution control. By 2002 this district changed its designation to the Antelope Valley Air Quality Management District.



The Ports Are Major Air Polluter

The SCAQMD jurisdiction is divided into sub-regions, or basins. The majority of Los Angeles County is in the South Coast Air Basin, while the area north of the San Gabriel Mountains is in the Mojave Desert Air Basin (**Figure 5.1**). The SCAQMD and the AVAQMD are the regulatory agencies in the two County air basins that are tasked with creating regulations, programs, and policies to reduce air pollution in Los Angeles County.

Governed by twelve (12) Board members, one (1) of which is a member of the Los Angeles County Board of Supervisors, the SCAQMD adopts policies and regulations that promote



clean air. A member of the County's Board of Supervisors is also on the AVAQMD seven-member Governing Board. The separation of the two districts reflects the geographic, climatological, and demographic differences of the highly urbanized Los Angeles basin and the less urbanized high desert of north-eastern Los Angeles County.

## IV. GLOBAL WARMING

There is wide scientific agreement that human actions and development patterns are contributing to the warming of the Earth's temperatures. The County recognizes the importance of addressing global warming through the goals and policies of its General Plan. The following discussion summarizes the legal setting related to planning for global warming, and is followed by the goals, policies, and implementation actions in the General Plan the County employs to address greenhouse gas emissions and climate change.

### Assembly Bill (AB) 32: California Global Warming Solutions Act of 2006

AB 32 is a landmark law that aims to control and reduce the emission of global warming gases in California. An overwhelming majority of scientists from around the world have universally predicted that global warming will have a number of adverse impacts on the State's ecosystems and economy. Varying scenarios call for a range of climatic changes that could produce intense flooding or prolonged droughts, higher temperatures that can cause wildfires, or rising sea levels that will affect low-lying coastal areas.

In California, there are a number of gases, such as methane, nitrous oxide, and hydrofluorocarbons that are contributing to the greenhouse effect, which refers to both naturally occurring greenhouse gases, and also gases emitted as a result of human activities. However, the largest greenhouse gas contributor is carbon dioxide, and in California, more than half of the fossil fuel emissions of carbon dioxide are related to transportation uses. As the County has some of the highest rates of single-occupant automobile use, traf-

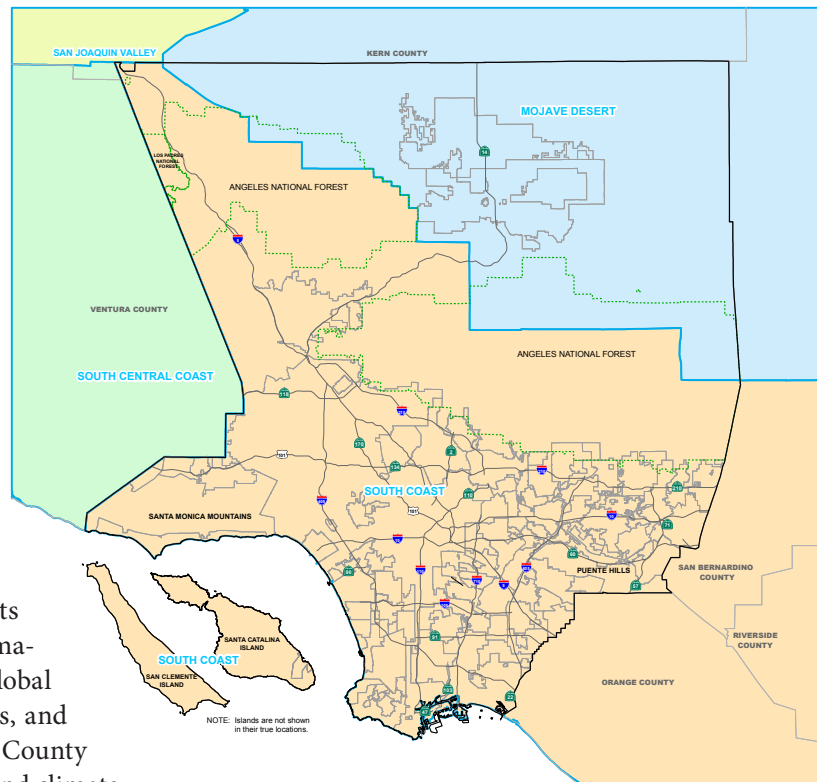


Figure 5.1: L.A. County Air Basins

fic congestion, and Vehicle Miles Travelled (VMT) in the nation, the County is a significant contributor to global warming.

AB 32 requires that the California State Air Resources Board (CARB) establish a comprehensive program of regulatory and market mechanisms to reduce greenhouse gases and carbon dioxide emissions to 1990 levels by the year 2020. The County, its cities, and businesses within the County borders will all have to comply with the AB 32 program as developed by CARB.

## V. PLANNING ISSUES RELATED TO AIR QUALITY AND GLOBAL WARMING

In anticipation of future regulatory measures, the General Plan implements many policies related to greenhouse gas emissions and global warming, as seen in the goals and policies section below. In addition, the County understands that global warming is not just about mitigation, but also adaptation. The County has already initiated several programs specifically designed to reduce greenhouse gas emissions, and is currently formulating a countywide Greenhouse

Gasses Emissions Reduction Plan. As these programs are further developed, the County will continue to participate in providing both regulatory and market strategies to meet the objectives established in the AB 32 law.

### Greenhouse Gas Emissions Reduction Plan

Los Angeles County will draft a Greenhouse Gas Reduction Plan in preparation of the County fulfilling the objectives outlined in California State law AB 32. To achieve this mandate, the County is currently working to determine the quantity of its greenhouse gas emissions and identify which sectors are responsible for the majority of these targeted emissions.

A comprehensive list of policies and action programs to conserve resources and abate global warming are being compiled. An important final step, to be determined with the help of State and local officials, will be to calculate the quantifiable savings from our policies and action plans. For now, however, the County, through its General Plan update, will implement a multitude of enforceable policies related to land use, energy conservation, and transportation that will work toward reducing the County's greenhouse gas emissions. The following section outlines each General

Plan element, and discusses the important policy issues related to the County's greenhouse gas emission reduction activities.

### Land Use Element

The way the County organizes its land use is one of the most significant actions it can take to improve the region's air quality and to reduce greenhouse gas emissions by minimizing VMTs and vehicle trips (see **Figure 5.2**). The Los Angeles County General Plan stresses the value of an efficient use of land that provides for a more a healthy, livable, walkable, and sustainable community. The Land Use Element's Three-Point Strategic Land Use Policy contains several strategies devoted to this end, such as the promotion of mixed-use developments along the County's major public transit routes, the identification of several transit-oriented districts (TODs) that promote housing and services near transportation hubs, and the preservation of our remaining open spaces and natural resources.

The General Plan Land Use Element introduces three very important programmatic actions the County is taking to address greenhouse gases and energy conservation, all of which are summarized in detail under the listing of current County programs below. The first is an ordinance requiring

**Sources of Potential Greenhouse Gas Reductions (Million Metric Tons CO<sub>2</sub> Equivalent)**

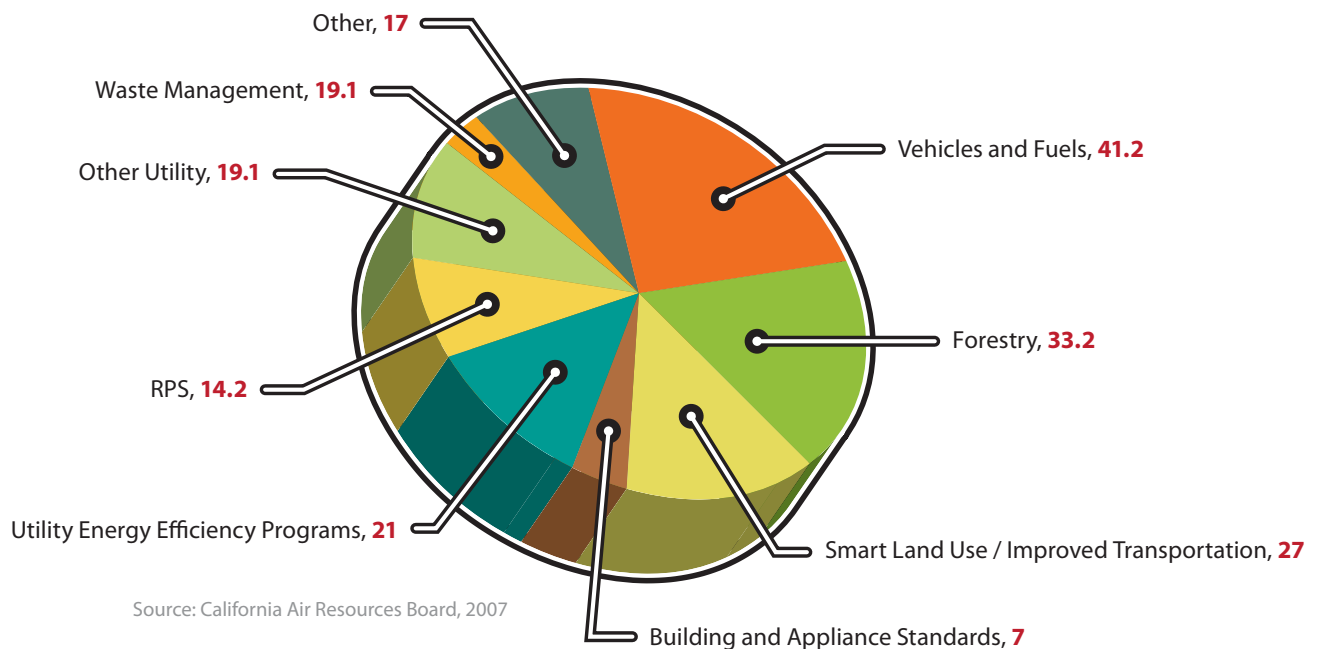


Figure 5.2: Sources of Potential Greenhouse Gas Reductions

“green-building” standards in all new development, as well as major renovations and additions; the second is an ordinance for the implementation of Low Impact Development (LID) Best Management Practices (BMPs); and the third, an ordinance outlining drought-tolerant landscaping requirements.

In short, the Land Use Element is the primary tool for the implementation of an efficient, smart growth-focused land use configuration for the County’s unincorporated areas. The ultimate objective of all of our land use policies is to limit the amount of sprawl and negative human impacts that development places on our landscape, air, and public health. The goals and policies of the General Plan provide an enforceable set of policy direction to achieve these objectives.

### Mobility Element

There is a direct link between the County’s transportation activities and air pollution. According to SCAQMD, mobile sources of pollution, such as cars, trucks, buses, construction equipment, trains, ships and airplanes, account for 60 percent of all smog producing emissions in the region.



Congestion Pollutes the Air

#### Development Policies That Reduce Greenhouse Gas Emissions:

- Implement land use strategies to encourage jobs/housing proximity, promote transit-oriented development, and encourage high density development along transit corridors. Encourage compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of public transit systems.
- Encourage infill, redevelopment, and higher density development, whether in incorporated or unincorporated settings.
- Encourage new development to integrate housing, civic and retail amenities (jobs, schools, parks, shopping opportunities) to help reduce VMT resulting from discretionary automobile trips.

*-Governor’s Office of Planning and Research  
CEQA and Climate Change Technical Advisory, June 18, 2008*

Additionally, the County’s highly congested freeways and highways further contribute to the conditions that produce air pollution.

Despite the fact that Los Angeles County has markedly improved its air quality over previous decades, the region still has the nation’s poorest air quality. More importantly, the continued population and economic growth that is projected for the County could overwhelm these air quality gains unless careful attention is paid to voluntary and regulatory measures that reduce transportation-related emissions.

The General Plan provides a wide array of policies that address strategies for improving air quality and reducing greenhouse gas emissions in the County. Many strategies are transportation-based, such as improving the efficiency of the County roadway network, and implementing mobility management opportunities such as increased ridesharing and vanpools. Many other policies, however, are based on creative land use strategies that require less automotive travel. These include promoting mixed use and transit-oriented development (TOD), which encourages infill development over suburban sprawl and provides opportunities for increased transit use. Developer incentives to increase density in both existing and newly subdivided areas encourage more pedestrian activity and less reliance on automobiles, particularly if employment opportunities and services are nearby. Finally, the County is promoting new design standards for streets and sidewalks in order to

encourage healthier, safer, more attractive environments for walking and biking, further reducing the need to use automobiles.

### Conservation and Open Space Element

The Conservation and Open Space Element provides policy direction for a multitude of the County's most important natural resources, all of which work toward the goal of preserving our resources, conserving energy, and reducing the human impact on the environment. Many of the goals and policies of the Conservation and Open Space Element recognize the same tenet of the Land Use Element - that the way the County organizes its land is extremely important in fighting air pollution and greenhouse gas emissions.

The General Plan provides specific guidance on how to preserve the County's remaining open spaces. This element also details the County's Significant Ecological Areas and

Hillside Management programs, which allow the County to preserve its biotic resources and hillsides through land use regulation. Further policy guidance promotes locally grown, sustainable and organic farming practices, and also seeks to increase the use of renewable energy resources, such as wind and solar power, both commercially and on-site.

The General Plan strives to provide more than just broad policy guidance and as such, many policies and action programs are immediately enforceable and will be easily implemented upon adoption.

### Public Services and Facilities Element

The Public Services and Facilities Element is a collaborative effort with the County agencies and departments that provide the primary services for County residents and businesses, such as law enforcement, fire, and libraries. This collaborative effort has resulted in the adoption of the General Plan's goal for sustainable practices and development by multiple County service providers. As such, the General Plan has a far-reaching effect for promoting practices that will improve our air quality, reduce greenhouse gases, and improve our environment.

Important contributors to the Public Services and Facilities Element include the Department of Public Works and Sanitation Districts, who effectively manage the County's water and sewer infrastructure. The General Plan provides clear policy guidance to reduce the impacts on our groundwater through Low Impact Development (LID) practices and LEED greenbuilding techniques. Additionally, the General Plan provides policy direction for the management of the County's significant waste reduction programs and practices.

The General Plan provides a means for a variety of collaborative projects and policies that will be important in the County's abatement of air pollution and reduction in greenhouse gases as required by AB 32. The County is already taking steps to increase water and energy efficiency and reduce its impacts on climate change. The following sections outline the current and proposed programs that the County employs to directly address air pollution and greenhouse gas reduction, followed by the goals and policies from the General Plan that work together with these programs to positively affect climate change.



Bicycle Infrastructure is Needed to Lower Air Pollution

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Many Schools and Playgrounds in the County are Adjacent to Major Air Polluters

## VI. CURRENT AND PROPOSED COUNTY PROGRAMS

The two sources that organize and contain the majority of policy information and implementation measures to increase energy efficiency, improve air quality, and address global warming can be found in the Los Angeles County General Plan and the County Code.

### The General Plan

The presiding theme of the Los Angeles County General Plan is sustainability. The General Plan provides the framework for how the County will grow and develop over the next 20 years, and it positions Los Angeles County to be a leader in sustainable development and environmental stewardship. The list at the end of this section compiles in one place the General Plan's goals and policies related to improving air quality, combating global warming, and improving the conditions of the County's environment.

### County Code

There are several building and development standards within the County Code that address air quality, energy efficiency, and environmental conservation. The Code outlines several land use management strategies, such as transit-oriented development and clustered development that implement efficient land use policy to reduce environmental impacts and automobile use. Other standards include open space

requirements in new developments, the hillside management ordinance, minimum requirements for parking lot landscaping, and required tree canopies for new development. Further adaptations in the County Code to improve energy efficiency and lessen environmental impacts will be ongoing through the Department of Regional Planning's (DRP) Zoning Ordinance Update Program (ZOUP).

The programs and implementation measures outlined in the General Plan and implemented through the County Code and other endeavors are divided into three (3) programs that are detailed below:

1. Energy and Water Efficiency Program;
2. Environmental Stewardship Program; and,
3. Public Education and Outreach Program.

### Energy and Water Efficiency Program

This program seeks to further reduce the energy and water consumption of County facilities through the establishment of specific reduction targets. Initiatives contained under the Energy and Water Efficiency Program include:

#### Internal Services Department (ISD)

##### Energy Management Program

Ongoing ISD projects that have been implemented have resulted in over \$100 million in cumulative energy savings to the County. Most of these savings have been achieved through the retrofitting or replacement of building lighting



Automobile With Biofuel Engine Conversion



An Immense Amount of Energy is Needed to Convey Water Through the California Aqueduct

systems and air conditioning equipment. On an annual basis, these savings currently offset approximately 10% of the total ISD Utilities Budget, or the equivalency of 1,370 million pounds of CO<sub>2</sub>, 12,000 cars taken off the road, or 20,000 acres of trees planted.

#### **ISD Facility Retrofitting Program**

Initiated in 2004, this program “tunes up” County heating, ventilation, and air conditioning equipment. There are approximately 500 County buildings that are identified for the program and that will receive retrofitting upgrades. Other energy technologies that ISD is investigating to implement in this program where appropriate include thermal storage, distributed generation, and widespread implementation of ISD’s online, real-time energy monitoring tool (EEMIS).

#### **County Purchasing Policy (P-1050)**

Under P-1050, ISD’s Purchasing Division will determine appropriate standards for green purchasing and will develop a 5-year plan to phase-in categories of certified goods. Easy to adopt purchasing categories, such as paper and cleaning supplies, will be implemented immediately. Central purchasing agreements with a catalog of environmentally friendly and energy efficient products will be established.

#### **Integrated Regional Water Management Plans (IRWMP)**

There is currently one IRWMP in the planning process (Upper Santa Clara), and two (2) recently completed IRWMPs (Antelope Valley in 2007 and the Greater Los Angeles County Region in 2006), within Los Angeles County. These IRWMP plans are charged with developing strategies to secure a safe and reliable supply of water for the County. Within the plans are various project lists, of which many apply directly to the reduction of greenhouse gases. Global warming is projected to worsen the intensity of droughts and increase drought occurrence. The implementation of these plans will address water efficiency, conservation, and recycling as well as the protection of ground and surface water and the development of new supplies.

#### **Recycled Water Task Force**

In 2006, the Los Angeles County Board of Supervisors directed the Department of Public Works (DPW) to convene a Task Force to make recommendations for the expanded use of recycled water for nonpotable purposes in the County. The County recognizes that increasing the use of recycled water would significantly lessen the County’s dependency and the environmental impacts of imported water sources.

#### **Green Building Ordinance**

Pertains to the requirement of third party certification of new buildings and large renovations of all appropriate industrial, commercial, and residential development. In

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addition, the development of basic County specific standards will ensure the program meets the goals of water and energy efficient design and development. The purpose of Green Building Ordinance (to be adopted) is to establish green building techniques into the construction of new private residential and non-residential buildings to achieve the following goals:

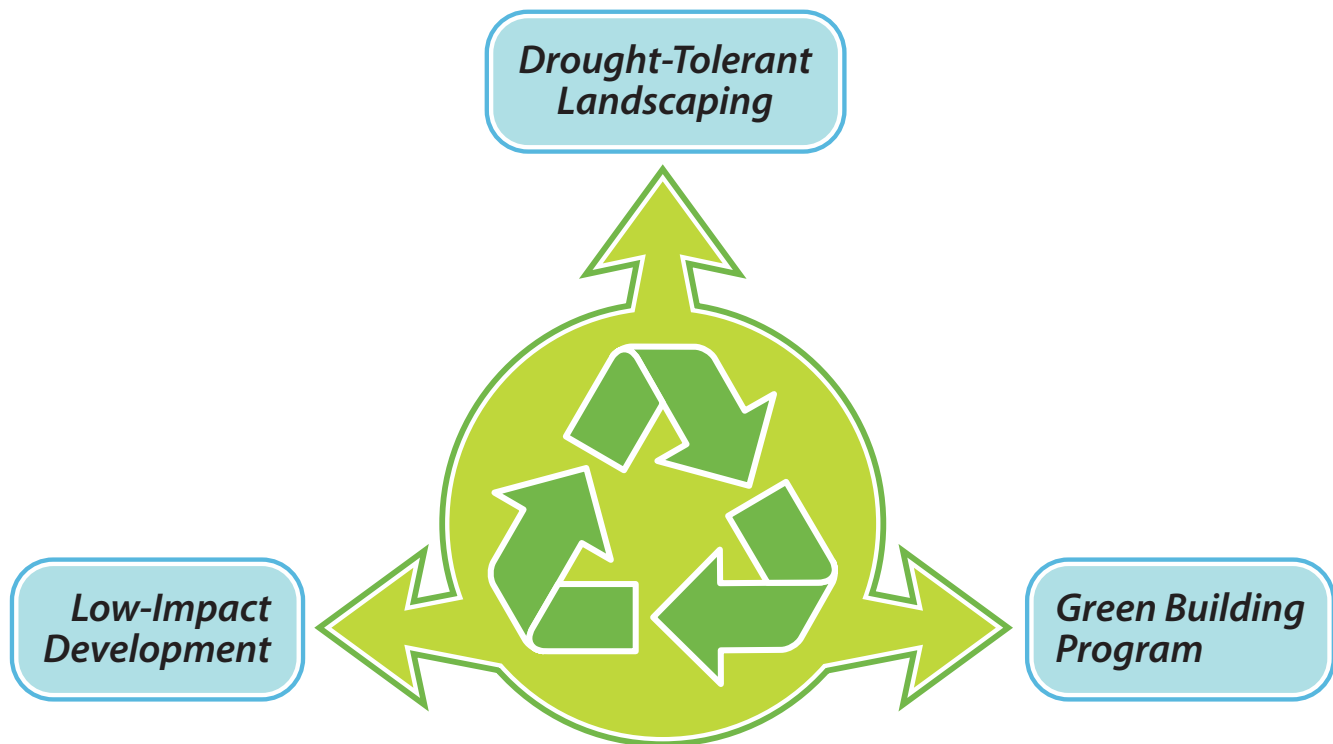
- To increase water efficiency and lower water usage;
- To increase energy efficiency and lower energy usage;
- To encourage the conservation of natural resources;
- To reduce waste in landfills generated by the demolition of buildings and construction projects;
- To minimize impacts to existing infrastructure; and,
- To promote a healthier indoor environment.

#### **Low Impact Development (LID) Ordinance**

The Low Impact Development (LID) Ordinance (to be adopted) applies to all new parking lots, nonresidential projects, municipal projects, mixed use projects, multi-family residential projects of 5 or more units, and residential subdivisions of 5 or more units, with simplified LID

requirements applicable to residential developments with less than 5 units. The purpose of the Low-Impact Development Ordinance is to require the use of LID principles in development projects. LID encourages site sustainability and smart growth in a manner that respects and preserves the characteristics of the County's watersheds, drainage paths, water supplies, and natural resources. LID builds on conventional design strategies by exploiting every surface in the development, softscape and hardscape, to perform a beneficial hydrologic function. The surfaces are used to retain, detain, store, change the timing of, or filter runoff in a number of different configurations and combinations. The objectives of the County's LID Ordinance are to:

- Mimic undeveloped stormwater and urban runoff rates and volumes in any storm event up to and including the 50 year capital design storm event;
- Prevent pollutants of concern from leaving the site in stormwater as the result of storms up to and including the water quality design storm event; and,
- Minimize hydromodification impacts to a natural drainage system.



**Table 5.2: Green Building Requirements for New Private Residential and Non-Residential Buildings**

Title 22 Zoning Requirement		Phase 1	Phase 2
1	New residential buildings including single-family dwellings < 5 units, two-family dwellings and multi-family dwellings < 5 units	County of L.A. Green Building Standards	County of L.A. Green Building Standards
2	New residential buildings including single-family dwellings > 5 units, two-family dwellings and multi-family dwellings > 5 units	County of L.A. Green Building Standards	Green Point Rated or California Green Builder
3	New hotels or nonresidential or mixed use buildings < 10,000 square feet of gross floor area	County of L.A. Green Building Standards	County of L.A. Green Building Standards
4	New hotels or nonresidential or mixed use buildings > 10,000 square feet and < 25,000 square feet of gross floor area	County of L.A. Green Building Standards	LEED – Certified
5	New hotels or nonresidential or mixed use buildings > 25,000 square feet of gross floor area	LEED - Silver	LEED – Silver
6	First time tenant improvements > 25,000 square feet	County of L.A. Green Building Standards	LEED – Certified
7	New high-rise buildings > 75 feet in height	LEED - Silver	LEED – Silver

### Drought Tolerant Landscaping Ordinance

The purpose of the Drought-Tolerant Landscaping Ordinance (to be adopted) is to establish minimum standards for the design and installation of landscaping using drought-tolerant plants and native plants that require minimum water and ensure that the County will continue to realize the benefits of landscaping that is appropriate to the particular project and region's climate. The Drought-Tolerant Landscaping Ordinance applies to on-site landscaping for all new construction. The landscaping development standards under the Drought-Tolerant Landscaping Ordinance are as follows:

- A minimum of 75% of any landscaped area shall be plants as specified within the Drought-Tolerant Approved Plant List;
- Turf shall not exceed 25% of landscaped area; and,
- Plants shall be grouped in hydrozones in accordance with their respective water, cultural (soil, climate, sun and light) and maintenance needs.

### The Green Grant Program

Provides money to upgrade your home with energy saving tools, such as tankless water heaters, solar panels, insulation, and attic fans. The program is targeted to low-income homeowners in unincorporated County areas and is funded by Community Development Block Grants (CDBG).

### Environmental Stewardship Program

The program's purpose is to reduce the County's "environmental footprint" including the amount of greenhouse gases produced through direct and indirect County operations. Initiatives contained under the Environmental Stewardship Program include:

#### California Climate Action Registry

The County has joined the Registry in order to utilize their reporting protocol for developing an assessment of the County's total greenhouse gases emissions responsibility.

#### County "Clean Fuels" Policy

Since 1995, the Board of Supervisors has directed all County departments to report on the composition of their fleet and their progress toward acquiring clean fuel vehicles.

#### Parks Master Plan

The Los Angeles County Department of Parks and Recreation (DPR) is currently developing a parks master plan. This plan concentrates on inventorying existing County parks and identifying opportunities for the expansion of the County's park system.

#### Departmental Recycling

The Energy and Environmental Policy team is working to enhance the County Departmental recycling Program which is led by the Public Works' Environmental Programs



The following information on alternative commuter choices can be found at the County's CEO website at <http://ceo.lacounty.gov/wpp/rideshare.htm>. For additional rideshare information or assistance contact the Chief Executive Office, Workplace Programs at (213) 974-1182.

**Public Transportation:** Employees are encouraged to take public transit at least one day a week. Call 1-800-COMMUTE or <http://www.socalcommute.org>

**Metrolink Services:** For information on commuter rail service lines call 1-800 371-LINK or <http://www.metrolinktrains.com>

**Carpooling:** Employees are encouraged to rideshare to work at least one day a week. For ridematch service, call 1-800-COMMUTE or <http://www.ridematch.info>

**Vanpooling:** Employees are encouraged to form "independent" vanpools with co-workers or near-by employees. Contact VPSI at 1-800 826-7433 or website <http://www.vanpoolusa.com>

**Rideguides and Rideshare Matching:** For "personalized" information on potential rideshare partners, public transit services in your area, park-and-ride lots and vanpools, call 1-800-COMMUTE or <http://www.ridematch.info>

## Rideshare

The County of Los Angeles Air Quality-Rideshare Program, mandated by County Ordinance 90-0033U, complies with the South Coast Air Quality Management District (SCAQMD) Rule 2202 Employee Commute Program and the federal Clean Air Act. Our mission is to promote ridesharing and telework as a workplace strategy that reduces traffic congestion, air pollution, and commuter costs. The Chief Executive Office (CEO) sets program policy and coordinates implementation of uniform procedures, through a Countywide Coordinator Network. The County Labor-Management Advisory Committee has oversight responsibility for Civic Center Rideshare strategies and achievement of regional air quality/rideshare goals.

## Environmental Fairs

Coordinated by the Energy and Environmental Policy Team, there will be a series of energy and environmental fairs, which will provide County employees and the public with opportunities to learn about energy efficient and sustainable products and practices for home and work.

Division. This program placed a priority on implementing recycling bins in visible areas for the segregation of paper, plastic, glass, and other recyclables from normal waste.

## Policies for Livable, Active Communities and Environments (PLACE) Program

The Department of Public Health's (DPH) PLACE program addresses the influences of land use and community design on physical health. This program is open to cities, non-profits, school, and for-profit organization that seek to promote changes to the built environment, such as streets, parks, and alternate modes of transportation, that promote physical activity in the everyday lives of County residents.

## Public Education and Outreach Program

This program utilizes the County's communication and outreach channels to facilitate energy conservation practices and assistance programs. Initiatives contained under the Environmental Stewardship Program include:



County Motor Pool Vehicle, Toyota Prius Hybrid



Haze Over Downtown Los Angeles

### Regional Outreach

The Energy and Environmental Policy team conducts workshops on doing “green” business with the County. The first workshop was held in March 2007 in El Segundo with the Office of Small Business.

### Local Government Collaboration

The County, through ISD, has joined the Local Government Commission Sustainable Energy Coalition (LGSEC). The LGSEC is a membership of local governments who have committed to tracking and participating in energy activities jointly in order to conserve expenses and speak with a stronger, unified voice.

## VII. GOALS, POLICIES AND IMPLEMENTATION ACTIONS

The goals and policies which apply to air resources and global warming are:

### Goal AR-1

A County that exceeds State air quality standards and reduces global warming greenhouse gas emissions.

- **Policy AR 1.1:** Support efforts to reduce the effects of Global Warming through the participation in AB 32 (2006) programs that reduce greenhouse gas emissions in the County.
- **Policy AR 1.2:** Work with scientists and other experts to understand the County’s ecological footprint and to understand global warming’s effect on the County.
- **Policy AR 1.3:** Require the use of zero, low emission, biodiesel and hybrid vehicles in the County motor pool.
- **Policy AR 1.4:** Continue inter-agency and inter-jurisdictional participation in global warming reduction activities.

### Implementation Action AR 1.1

Join the United States Mayors Climate Protection Agreement, a pact amongst local governments that seeks to act against global warming by reducing greenhouse gas emissions to below 1990 levels.

### Implementation Action AR 1.2

Begin creating the County’s Greenhouse Gas Reduction Plan.

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## Goal AR-2

Efficient and progressive smart growth land use policies that address the diverse needs of all County residents.

- **Policy AR 2.1:** Encourage urban infill development on vacant, underutilized sites, and brownfield areas.
- **Policy AR 2.2:** Promote and develop transit oriented districts along major transit corridors.
- **Policy AR 2.3:** Encourage mixed use development to facilitate the proximity and linkage between housing and employment throughout the County.
- **Policy AR 2.4:** Promote land use practices that encourage housing to be developed in proximity to employment opportunities.
- **Policy AR 2.5:** Encourage compact development and increased residential density in appropriately designated areas.
- **Policy AR 2.6:** Support creative housing development that provides mixed-income, affordable, and rental housing in various housing types and densities.
- **Policy AR 2.7:** Ensure that all community plans, zoning, and subsequent development meet all Federal and State fair housing laws and regulations.
- **Policy AR 2.8:** Ensure universal accessibility in all planning endeavors to comply with the Americans with Disabilities Act.
- **Policy AR 2.9:** Protect rural communities by utilizing natural landforms to create buffers from urban and suburban development.

### Implementation Action AR 2.1

Apply for a SCAG 2% Compass Technical Assistance Grant for a demonstration project that targets Smart Growth initiatives in the County, such as an existing Transit Oriented District (TOD).

### Implementation Action AR 2.2

Create individual and unique mixed use zoning overlays for all areas indicated as potential Mixed Use overlays on the Land Use Policy maps.

### Implementation Action AR 2.3

Create an infill development ordinance that focuses development on vacant and underutilized parcels. This ordinance should expedite permitting and provide incentives for development in these urban areas.

### Implementation Action AR 2.4

Amend existing TOD District boundaries, and study possibilities for new TOD districts throughout the unincorporated County along light rail lines and major bus routes.

### Goal AR-3

Sustainable communities that conserve resources, protect the environment, and improve public health.

- **Policy AR 3.1:** Promote or require “green building” principles, LEED certification, and Low Impact Development (LID) in all development activities.
- **Policy AR 3.2:** Encourage land use practices that minimize sprawl.
- **Policy AR 3.3:** Promote land use practices that enhance public health.
- **Policy AR 3.4:** Promote efficient community water and energy practices.
- **Policy AR 3.5:** Preserve and expand green spaces throughout the County to encourage healthy lifestyles.
- **Policy AR 3.6:** Require development to optimize the solar orientation of buildings to maximize passive and active solar design techniques.
- **Policy AR 3.7:** Support land use policy that promotes environmental justice.
- **Policy AR 3.8:** Promote sustainable subdivisions that meet Leadership in Energy and Environmental Design – Neighborhood Development standards.
- **Policy AR 3.9:** Promote compact, walkable, well-designed development.

#### *Implementation Action AR 3.1*

Develop a Transfer of Development Rights (TDR) Program where identified rural and open space areas under development pressure can sell their development credits to established receiving areas. Develop an accompanying map of target open space areas for the TDR program.

#### *Implementation Action AR 3.2*

Identify greenbelts and natural buffers around rural County communities.

#### *Implementation Action AR 3.3*

Develop a Competitive Grant Program that will provide partial funding for the retrofitting of homes and/or businesses for landscape water efficiency projects to replace traditional lawns.

#### *Implementation Action AR 3.4*

Develop a Competitive Grant Program to fund green building projects to upgrade existing buildings to meet LEED certified or comparable standards.

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**Goal AR-4**

An accessible transportation system that ensures the mobility of people and goods throughout the County.

- **Policy AR 4.1:** Expand the availability of transportation options throughout the County.
- **Policy AR 4.2:** Encourage a range of transportation services at both the regional and local levels, especially for transit dependent populations.
- **Policy AR 4.3:** Sustain an affordable countywide transportation system for all users.
- **Policy AR 4.4:** Support the linking of regional and community-level transportation systems.
- **Policy AR 4.5:** Create and upgrade pedestrian environments to increase walkability.
- **Policy AR 4.6:** Maintain, upgrade, and create new transit facilities.
- **Policy AR 4.7:** Ensure the efficient, safe, and environmentally-friendly movement of goods throughout the County.
- **Policy AR 4.8:** Maximize aviation system efficiencies for the movement of people and goods.

**Goal AR-5**

An efficient transportation system that effectively utilizes and expands multimodal transportation options.

- **Policy AR 5.1:** Encourage street standards that embrace the complete streets concept, which designs roadways for all users equally including pedestrians, bicyclists, motorists, people with disabilities, seniors, and users of public transit.
- **Policy AR 5.2:** Expand transportation options throughout the County that reduce automobile dependence.
- **Policy AR 5.3:** Reduce Vehicle Miles Traveled (VMT) and vehicle trips through the use of alternative modes of transportation and various mobility management practices, such as the reduction of parking requirements, employer/institution based transit passes, regional carpooling programs, and telecommuting.
- **Policy AR 5.4:** Support smart-growth street design, such as traditional street grid patterns and alleyways.
- **Policy AR 5.5:** Expand bicycle infrastructure and amenities throughout the County for both transportation and recreation.
- **Policy AR 5.6:** Ensure bike lanes, bike paths, and pedestrian connectivity in all future street improvements.
- **Policy AR 5.7:** Require a maximum level of connectivity in transportation systems and community-level designs.

**Implementation Action AR 2.1**

Establish a task force to study and evaluate the design guidelines and standards for sidewalks, bike lanes and roads in the County.

**Goal AR-6**

An environmentally sensitive transportation system through the use of innovative programs and technologies.

- **Policy AR 6.1:** Encourage the use of emerging technologies in the development of transportation facilities and infrastructure, such as liquid and compressed natural gas and hydrogen gas stations, Intelligent Transportation Systems (ITS), and electric care plug-in ports.
- **Policy AR 6.2:** Minimize roadway runoff through the use of permeable surface materials such as porous asphalt and concrete materials wherever possible.
- **Policy AR 6.3:** Require “green streets” that enhance bio-retention and minimize pollutants conveyed by runoff.
- **Policy AR 6.4:** Require the use of zero, low emission, biodiesel and hybrid vehicles in the County motor pool.

**Implementation Action AR 6.1**

Develop a standard for green streets in the construction of new roadways and the maintenance of old roadways. Consider a process that allows for a Pilot Project to be completed.

**Implementation Action AR 6.2**

Using the countywide employee computer-purchasing program as a model, create a similar program that would allow County employees the opportunity to lease a Zero or Low Emission Vehicle at a reasonable price.

**Goal AR-7**

A wide range of County open space areas.

- **Policy AR 7.1:** Promote the preservation of open space areas throughout the County.
- **Policy AR 7.2:** Support the acquisition of new open space areas throughout the County.

**Implementation Action AR 7.1**

Coordinate with Local, State, and Federal park agencies and conservancies to acquire open space for recreation and biotic preservation throughout the County.

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## Goal AR-8

A balanced and interconnected network of passive and active local parks, community parks, regional recreation areas, multi-purpose trail systems, beaches, and harbors.

- **Policy AR 8.1:** Develop and expand regional and local parkland and trail systems in the County.
- **Policy AR 8.2:** Require new development to dedicate and improve parkland, as allowed by the Quimby Act. School grounds cannot be calculated as new park acreage.
- **Policy AR 8.3:** Direct resources to communities that are underserved by local parks.
- **Policy AR 8.4:** Expand multi-purpose trail networks for all users.
- **Policy AR 8.5:** Improve current parks and trail systems with needed amenities.
- **Policy AR 8.6:** Design parks and trails for optimal safety, security and sustainability.

### *Implementation Action AR 8.1*

Update Hillside Management CUP to modify open space requirements.

### *Implementation Action AR 8.2*

Develop a Parks Master Plan for Los Angeles County. This plan will integrate countywide park planning goals into a single, coherent parks and recreation plan, sharing inter-jurisdictional responsibility for the provision of new parkland, continued maintenance, and joint-use agreements.

## Goal AR-9

Significant ecological systems, biotic communities, and imperiled species preserved in perpetuity.

- **Policy AR 9.1:** Require applicants to consult with County staff early in the development process for assistance in project designs that maximize natural features and preserve biological resources.
- **Policy AR 9.2:** Maintain and monitor the program and network of Significant Ecological Areas (SEAs), and other programs to conserve habitat, wetlands, and wildlife corridors in the County.
- **Policy AR 9.3:** Participate in inter-jurisdictional collaborative strategies that protect biological resources.
- **Policy AR 9.4:** Maximize the ecological function of the County's diverse natural habitats, such as Coastal sage scrub, perennial grasslands, Joshua trees, California walnut, Western Sycamore, and native Oak woodlands.
- **Policy AR 9.5:** Support the restoration and preservation of degraded streams, rivers, wetlands and other areas with significant biological resources.
- **Policy AR 9.6:** Maintain and monitor the Significant Ecological Areas (SEAs) and other programs to conserve special-status species, their associated habitat and wildlife movement corridors.
- **Policy AR 9.7:** Require that development within an SEA be designed to:
  - Preserve sensitive ecological resources;
  - Maintain sufficient natural vegetative cover and open spaces to buffer sensitive resource areas;
  - Maintain water bodies and watercourses in a substantially natural state;
  - Preserve wildlife movement corridors;
  - Site roads and utilities to avoid sensitive habitat areas or migratory paths;
  - Control light pollution;
  - Reduce erosion;
  - Limit noise producing uses; and,
  - Provide open or permeable fencing.

- **Policy AR 9.8:** Require that development mitigate ‘in-kind’ any significant effects on biologically sensitive areas and wetlands.
- **Policy AR 9.9:** Maintain watercourses and wetlands in a natural state, unaltered by grading, fill, or diversion activities.
- **Policy AR 9.10:** Support innovative agricultural practices that conserve resources and promote sustainability, such as drip irrigation, hydroponics and organic farming.
- **Policy AR 9.11:** Cultivate and expand farmer’s markets throughout the County.
- **Policy AR 9.12:** Encourage a countywide community garden and urban farming program.

#### **Implementation Action AR 9.1**

Initiate a County tree planting program with a goal of planting one tree for every resident in the unincorporated areas of Los Angeles County. Drought resistant and native trees should be strategically planted in designated locations as part of neighborhood beautification programs, along commercial corridors, and in school yards.

#### **Implementation Action AR 9.2**

Create a formal Mitigation Land Banking Program with appropriate criteria for a project’s eligibility that will allow the purchase of land within Significant Ecological Areas (SEA) as a mitigation measure for development in areas outside of SEAs. These purchases should be strategically targeted in SEAs that are threatened by development activity along the urban fringe and within existing urban areas. Optimal mitigation would be “in-kind” with regard to species or habitat. The optimal realization radius for “in-kind” mitigation is two (2) miles, when feasible.

#### **Implementation Action AR 9.3**

Work with the Community Development Commission to expand the County’s community garden program and to identify County-owned parcels and other potential sites for community gardens.

#### **Implementation Action AR 9.4**

Develop and organic farming/hydroponic incentive program.

### **Goal AR-10**

An optimal mix of renewable and non-renewable energy sources.

- **Policy AR 10.1:** Expand the production and use of alternative energy resources.
- **Policy AR 10.2:** Encourage the effective management of non-renewable resources, including storage facilities to meet peak demands.
- **Policy AR 10.3:** Require all new development to employ passive solar techniques and active solar technologies.

#### **Implementation Action AR 10.1**

Develop a corporate sponsorship program to increase public awareness and consumer education for development related issues such as on-site alternative energy generation, water and energy conservation measures, xeriscaping, tree planting and public health.

#### **Implementation Action AR 10.2**

Streamline permitting process to accommodate renewable energy source usage for on-site and commercial production.

#### **Implementation Action AR 10.1**

Amend the landscaping ordinance to require 30% tree canopy coverage at maturity on all new development.

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## Goal AR-11

A County that maximizes energy conservation.

## Goal AR-12

A protected supply of County water resources.

- **Policy AR 12.1:** Support preservation, restoration and strategic acquisition of open space to preserve natural streams, drainage channels, wetlands, and rivers, which are necessary for the healthy function of watersheds.
- **Policy AR 12.2:** Protect natural groundwater recharge areas and artificial spreading grounds.
- **Policy AR 12.3:** Effectively manage watersheds to balance growth and development with resource conservation and flood hazard mitigation.
- **Policy AR 12.4:** Support the preparation and implementation of watershed and river master plans.
- **Policy AR 12.5:** Promote the development and use of new and improved water and flood management technologies and infrastructure such as the utilization of Low Impact Development (LID) techniques.
- **Policy AR 12.6:** Maximize the conservation of water throughout the County.
- **Policy AR 12.7:** Expand the existing supply of water through the development of new supplies such as desalination.

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### ***Implementation Action AR 12.1***

Review and create a water conservation ordinance with appropriate enforcement procedures. Since Los Angeles County imports most of its water supply, this finite supply should be carefully distributed, used, and recycled in order to maximize efficiency and increase reliability.

**Goal AR-13**

A clean supply of water to satisfy current and projected demand.

- **Policy AR 13.1:** Require all development to provide a guaranteed supply of water.
- **Policy AR 13.2:** Eliminate point and non-point source water pollution.
- **Policy AR 13.3:** Encourage and support the increased production, distribution and use of recycled water to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes, and other non-potable beneficial uses.

**Goal AR-14**

Minimal waste and pollution in the County.

- **Policy AR 14.1:** Maintain an efficient, safe and responsive waste management system that facilitates waste reduction while protecting the health and safety of the public.
- **Policy AR 14.2:** Reduce dependence on landfills by encouraging solid waste management facilities that utilize conversion technologies and waste to energy facilities.
- **Policy AR 14.3:** Reduce the County's waste stream to negligible levels.
- **Policy AR 14.4:** Encourage the use and procurement of recyclable and biodegradable materials throughout the County.
- **Policy AR 14.5:** Encourage recycling of construction and demolition debris generated by public and private projects.
- **Policy AR 14.6:** Ensure adequate and regular waste and recycling collection services.
- **Policy AR 14.7:** Increase the use of renewable energy sources in utility and telecommunications networks.

**Implementation Action AR 14.1**

Participate in a collaborative inter-agency effort to create a Zero Waste Program that will guide County Departments toward a zero waste, 100 percent recyclable environment.

**Implementation Action AR 14.2**

Create household, commercial and industrial waste reduction programs that identify incentives and best practices for waste reducing and recycling activities.

**Implementation Action AR 14.3**

Streamline the permitting process for utility and telecommunications that utilize renewable energy sources.

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## Economic Development Policies

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- **Policy AR 15.1:** Assist in the expansion, retention and recruitment of high-wage, environmentally friendly and carbon neutral, and targeted industries providing career track ladders with a variety of quality jobs.
- **Policy AR 15.2:** Encourage and foster the development of the green economic sector, such as the renewable energy industry.
- **Policy AR 15.3:** Encourage and incentivize infill development of vacant and underutilized sites as well as brownfield, greyfield and other environmentally-challenged sites throughout the County.
- **Policy AR 15.4:** Incentivize development along existing public transportation corridors and toward the urban core.

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### *Implementation Action AR 15.1*

Explore implementing a program that will provide for community benefits and jobs/housing balance when land is converted to residential from industrial.



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